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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,357	01/19/2001	Bruce Wayne Moore	RSW920000110US1	7711
7590	03/29/2006		EXAMINER BEKERMANN, MICHAEL	
IBM Corporation intellectual Property Law Dept. IQOA/Bldg. 040-3 1701 North Street Endicott, NY 13760			ART UNIT 3622	
			PAPER NUMBER	
DATE MAILED: 03/29/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,357

Applicant(s)

MOORE, BRUCE WAYNE

Examiner

Michael Bekerman

Art Unit

3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/19/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8-13, 17-22, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-13, 17-22, 26, 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to communications files on 12/19/2005.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 9, 10, 18, 19, and 27 are rejected under 35 U.S.C. 103(a) as unpatentable over Kent (U.S. Patent Pub. No. 2002/0040374 AI) in view of Cornuejols, et al. (Cornuejols, Gerard and Michael Trick, Quantitative Methods for the Management Sciences: 45-760, Course Notes, Fall 1998, herein "Cornuejols").**

3. Kent also discloses a method including steps of developing models to predict customer purchases (Kent at FIG. 4 at 100 and Paras. 0062-0068, "automatic personalization software program"), scoring customers for each predictive model (Kent at Paras. 0066-0068, "establishes priorities based upon criteria"), determining specific layout areas (Kent at Paras. 0091 and 0095- 0096, "standard design template" or "an aesthetically pleasing, readable final page"), determining where a particular product can be placed in the layout (Kent at Para. 0098, "match the relevant content and advertising, with a particular subscriber's predetermined desires and preferences"), and using an optimization model to customize the layout for customers (Kent at FIG. 5 at 48, Paras.

0077-0082, "optimization program," and Paras. 0098-0099, "final content of publication is variable"). Although Kent teaches all limitations of Applicant's base Claim 1 including using an optimization model to customize a layout, Kent does not explicitly disclose that the optimization model is one of a transportation model, network model, or generalized network model. Cornuejols teaches various methods of network optimization (special types of linear programming or constraint-based models) including a transportation model (Cornuejols at §11.3.3), a network model (Cornuejols at §11.4), and a generalized network model (Cornuejols at § 11.5). Accordingly, it would have been obvious to modify the optimization model feature of Kent to include any one of the transportation model, network model, or generalized network model taught by Cornuejols to advantageously provide a quick and intuitive approach to customizing a layout (Cornuejols at § 11.1).

4. Moreover, Kent provides customizations directed at a niche market or individual customers (Kent at Para. 0007, "an individual, or a small group of subscribers"), thereby anticipating Applicant's Claims 8-9.

5. **Claims 2, 11, and 20 are rejected under 35 U.S.C. 103(a) as unpatentable over Kent in view of Cornuejols, and further in view of Mohr et al. (U.S. Patent No. 6,826,727 B1, herein "Mohr").**

6. As discussed in detail above, Kent teaches all limitations recited in Applicant's Claim 1. However, Kent does not explicitly provide that the step of determining specific layout areas includes determining the maximum and minimum possible sizes for each

Art Unit: 3622

product layout. Mohr provides an automatic document layout system that maximizes or minimizes shape elements, thereby teaching the element deficient from Kent (Mohr at Abstract, Col. 3, L. 33-48, and Col. 18, L. 38-56). Accordingly, it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to modify Kent to include the maximum and minimum size determination step of Mohr for advantageously providing a useful tool for automatically arranging and sizing document elements (Mohr at Col. 3, L. 45- 48).

7. **Claims 3, 12, and 21 are rejected under 35 U.S.C. 103(a) as unpatentable over Kent in view of Cornuejols, and further in view of McCormick et al. (US. Patent Pub. No. 2002/10059339 A1, herein "McCormick").**

8. Kent does not explicitly teach that the step of determining specific layout areas further includes determining a preference multiplier for each layout area. McCormick provides a system that establishes correlations between the design and content elements of a first document and responses of recipients (McCormick at FIG. 4 and Para. 0027). Thus, it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to modify Kent to include the preference multiplier feature of McCormick to advantageously assist in designing a document in a manner that is not merely aesthetically attractive but demonstrably effective (McCormick at Para. 0070).

Art Unit: 3622

9. Claims 4, 13, and 22 are rejected under 35 U.S.C. 103(a) as unpatentable over Kent in view of Cornuejols, and further in view of Dowling (Dowling, Melissa, "Breaking the Pagination Rules," Catalog Age, June 1997,77-79), and Weiss (U.S. Patent No. 6,801,333).

10. While Kent does teach a print manager for printing (Kent at FIG. 1 at 34), Kent does not explicitly disclose a step of passing the optimization model output to the print manager for printing only if the expected profit exceeds the production cost of the customized layout. Dowling describes a printing condition in which the average price of items on a catalog page are required to be greater than the cost of printing the page (Dowling at p. 79). Dowling does not explicitly discuss printing criteria comparing *expected profit* to production cost. However, Weiss teaches comparing expected profit to cost for evaluating the desirability of printing a document (Weiss at Col. 1, L. 45-53). Accordingly, motivated by higher returns to layout customization (Dowling at p. 79), it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to modify Kent in view of the teachings of Dowling and the expected profit teachings Weiss for providing a step of passing the optimization model output to a print manager for printing only if expected profit exceeds the production cost of the customized layout.

Response to Arguments

11. In response to the 35 U.S.C. 103(a) rejection for claims 5-7, Applicant states that "none of the terms nor is the entire *Cornuejols* reference directed to customizing direct

Art Unit: 3622

marketing materials". Applicant argues that, based on this, there are no reasons to combine references Cornuejols and Kent other than those provided in the Applicant's specification. Kent acknowledges the availability of multiple optimization programs with the statement, "In most optimization programs, there are a number of conflict evaluation criteria..." (Paragraph 0077). Cornuejols teaches a copy of instructional notes used by a professor in a university setting to teach students (those attempting to become skilled in the art) optimization. While Cornuejols specifies the examples as network optimization, Cornuejols teaches the concept and principles of optimization using transportation model, network model, and generalized network model. Anyone skilled in the art of optimization (having studied optimization techniques as taught by Cornuejols) would find it obvious to modify Kent using whichever model they prefer.

12. Applicant further argues "if one were somehow motivated to combine *Kent* and *Cornuejols*, and it were somehow possible to combine the two systems, the result would not be the invention." From the previous statement, Applicant appears to admit that there is a possibility of combining the 2 references. Examiner, however, feels that Applicant has failed to provide clear and convincing reasoning that the combination of Kent and Cornuejols would not create the same invention. Examiner feels that the combination of Kent and Cornuejols would indeed result in the claimed invention.

13. Therefore, the 35 U.S.C. 102 rejections have been withdrawn and replaced with 35 U.S.C. 103(a) rejections.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bekerman whose telephone number is (571) 272-3256. The examiner can normally be reached on Monday - Friday, 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric W. Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JEFFREY D. CARLSON
PRIMARY EXAMINER